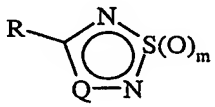
WHAT IS CLAIMED IS:

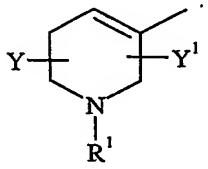
1. A pesticidal composition comprising a pesticidally effective amount of a compound of formula I in admixture with at least one agriculturally acceptable extender or adjuvant, wherein said compound of formula I is:



I

wherein

-R is an azacycle selected from:



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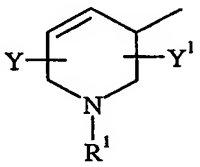

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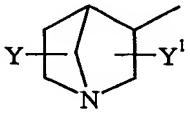

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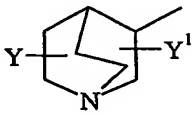

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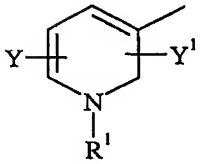

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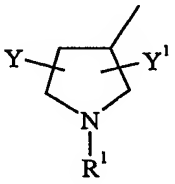

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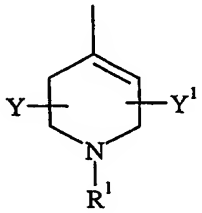

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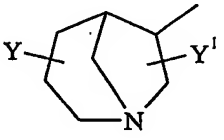

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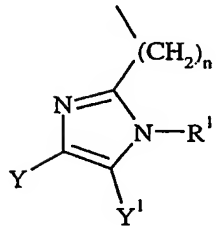

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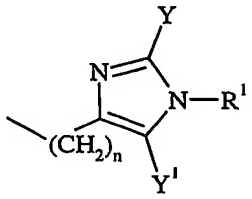

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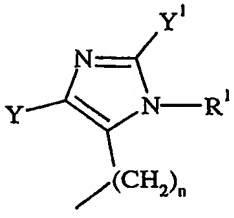

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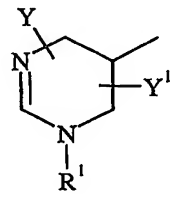

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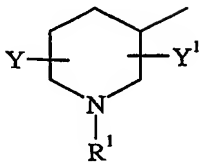

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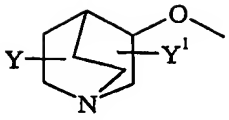

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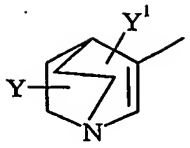

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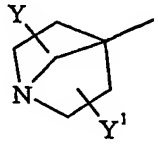

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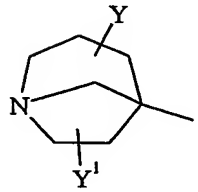

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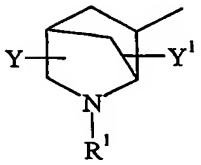

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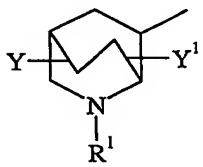

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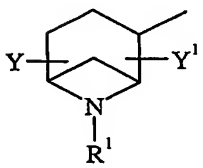

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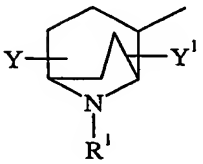

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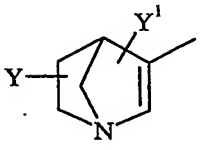

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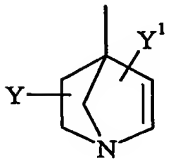

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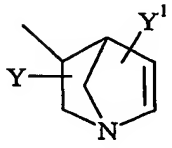

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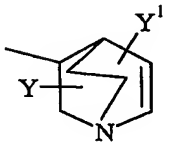

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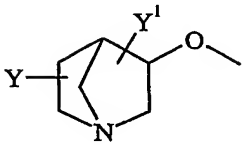

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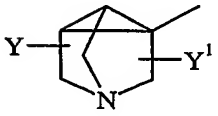

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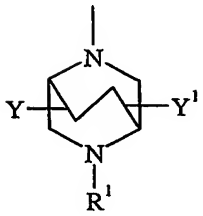

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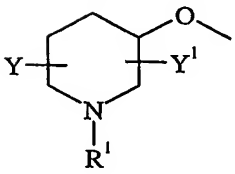


W29

where

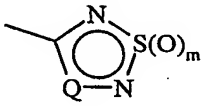
-Y and Y^1 may be attached at the same or different positions, and are independently selected from hydrogen, halogen, cyano, nitro, amino, carboxyl, alkyl, haloalkyl, alkenyl, alkoxy, haloalkoxy, aminoalkoxy, alkylcarbonyl, haloalkylcarbonyl, alkoxycarbonyl, haloalkoxycarbonyl, arylalkyl, aryl, aryloxy, and heterocyclyl,

where the aryl and heterocyclyl moieties may be optionally substituted with halogen, alkyl, haloalkyl, alkoxy, or haloalkoxy;

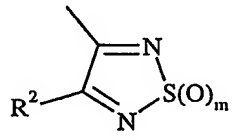
n is an integer from 0 to 2;

R^1 is selected from hydrogen, alkyl, haloalkyl, alkenyl, haloalkenyl, alkenyloxy, alkynyl, alkynyloxy, alkoxy, alkoxyalkyl, haloalkoxy, alkylcarbonyl, alkyloxycarbonyl, alkoxycarbonylalkoxy, arylcarbonyl, aryloxycarbonyl, haloalkoxycarbonyl, carboxyl and arylalkyl; wherein the aryl may be optionally substituted with halogen, alkyl, haloalkyl, alkoxy, or haloalkoxy;

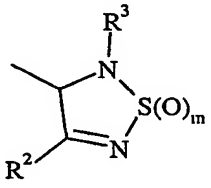
and wherein



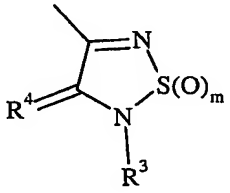
is a 1,2,5-thiadiazole where Q is CR^2 or $C=R^4$, wherein said 1,2,5-thiadiazole is selected from



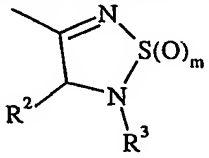
Ia
a 1,2,5-thiadiazol-3-yl



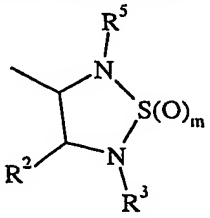
Ib
a 1,2,5-thiadiazolin-3-yl



Ic
a 1,2,5-thiadiazolin-3-R^4-4-yl



Id
a 1,2,5-thiadiazolin-4-yl



Ie
a 1,2,5-thiadiazolidin-3-yl

where

m is an integer from 0 to 2;

-R^2 is selected from hydrogen, hydroxy, halogen, amino, nitro, alkyl, haloalkyl, alkenyl, haloalkenyl, alkynyl, haloalkynyl, alkylaryl, alkoxy, haloalkoxy, aryloxy, alkenyloxy, haloalkenyloxy, alkynyloxy; thiol, alkylthio, haloalkylthio, cyanoalkylthio, arylthio, alkenylthio, alkynylthio, alkyloxycarbonyl, carboxyl; -$N(R^6)(R^7)$; -$NHN(R^6)(R^7)$; -$NHC(O)R^6$; -$NHC(O)OR^6$; -$OC(O)R^6$; where the aryl may be optionally substituted with halogen, alkyl, haloalkyl, alkoxy, cyano, or haloalkoxy moiety;

where

R^6 and R^7 are independently selected from hydrogen, alkyl, arylalkyl, alkoxy, acetyl, alkoxycarbonyl, alkoxyalkyl, aminoalkyl, and carbonylamino;

-R^3 and R^5 are independently selected from hydrogen, hydroxy, alkyl, alkoxy, alkoxyalkyl, aryl, arylalkyl, -$N(R^8)(R^9)$; -$NHC(O)R^8$ and -$NHC(O)OR^8$; where the aryl may be optionally substituted with halogen, alkyl, haloalkyl, alkoxy, cyano, or haloalkoxy moiety;

where

R^8 and R^9 are independently selected from hydrogen, alkyl, arylalkyl, alkoxy, acetyl, alkoxycarbonyl, alkoxyalkyl, aminoalkyl, and aminocarbonyl; or are taken together with R^1 to form a hetero-atom link;

-R^4 is selected from O, S and NR^{10};

where

R^{10} is selected from hydrogen, alkyl, alkoxy, alkoxyalkyl, alkenyl, alkynyl, alkenyloxy, alkynyloxy, aryl and arylalkyl;

and

the corresponding agriculturally acceptable salts thereof.

2. The composition of claim 1, wherein said azacycle R is selected from W1, W3, W4, W8; W10 and W11, where n is 1 or 2; W13, W14, W15, W20, W26, W28 and W29;

where

-Y and Y^1 are independently selected from hydrogen and halogen;

-R^1 is selected from hydrogen, alkyl, haloalkyl, alkoxyalkyl, arylalkyl, alkenyl, haloalkenyl, alkynyl, alkylcarbonyl and alkoxycarbonyl;

and,

said 1,2,5-thiadiazole is selected from i) Ia, where m is 0, and ii) Ib and Id, where m is 0 or 2;

where

-R^2 is selected from hydrogen, halogen, alkoxy, alkenyloxy, alkynyloxy, alkylthio, alkenylthio, and alkynylthio;

and

-R^3 is selected from hydrogen, hydroxy, alkyl, alkoxyalkyl, aryl and $N(R^8)(R^9)$;

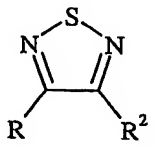
where

R^8 and R^9 are independently selected from hydrogen, alkyl, alkoxy and alkoxyalkyl.

3. The composition of claim 2, wherein said azacycle R is selected from W1, W3, W4, W13, W14 and W26, where Y and Y^1 are hydrogen and R^1 is selected from hydrogen, alkyl, haloalkyl, alkoxyalkyl, alkylcarbonyl, alkoxycarbonyl and arylalkyl; and said 1,2,5-thiadiazole is selected from i) Ia, where m 0.

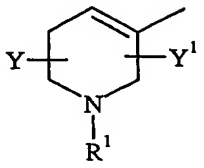
4. The composition of claim 3, wherein said azacycle R is selected from W1, W3 and W4; R^1 is selected from alkyl, haloalkyl, alkoxyalkyl and arylalkyl; and R^2 is selected from hydrogen, halogen, alkoxy, alkynyloxy and alkynylthio.

5. A pesticidal composition comprising a pesticidally effective amount of a compound of formula I in admixture with at least one agriculturally acceptable extender or adjuvant, wherein said compound of formula I is:

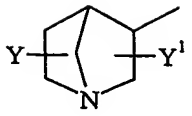


I

where R is an azacycle selected from:



W1



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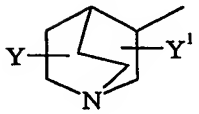

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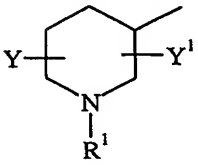

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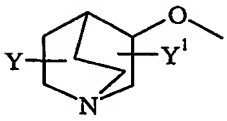
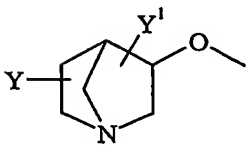


W14



W26

where

-Y and Y^1 are hydrogen;

R^1 is selected from hydrogen, alkyl, haloalkyl, alkoxyalkyl, alkylcarbonyl, alkoxycarbonyl and arylalkyl;

and

-R^2 is selected from hydrogen, halogen, alkoxy, alkenyloxy, alkynyloxy, alkylthio, alkenylthio, and alkynylthio.

6. The composition of claim 5, wherein said azacycle R is selected from W1, W3 and W4; R^1 is selected from hydrogen, alkyl, haloalkyl, alkoxyalkyl and arylalkyl; and R^2 is selected from hydrogen, halogen, alkoxy, alkynyloxy and alkynylthio.

7. The composition of claim 6, wherein R^1 is selected from hydrogen and alkyl, and R^2 is selected from hydrogen, chlorine, fluorine, alkoxy and alkynyloxy.

8. The composition of claim 1, further comprising one or more second compounds selected from the group consisting of pesticides, plant growth regulators, fertilizers and soil conditioners.

9. A method of controlling insects and acarids, comprising applying an insecticidally and acaricidally effective amount of a composition of claim 1 to a locus where insects and acarids are present or are expected to be present.

10. A method of controlling insects and acarids, comprising applying an insecticidally and acaricidally effective amount of a composition of claim 8 to a locus where insects and acarids are present or are expected to be present.